MARINE
RECREATIONAL INFORMATION
PROGRAM

FY Project Plan

Oregon Ocean Recreational Boat Survey Point & Variance Estimation

Created on

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1. Overview

1.1. Background

Consultant and State Agency final review and determination of the statistical method for computation of variance estimates for the Oregon ORBS (Ocean Recreational Boat Survey)

1.2. Project Description

The Oregon Ocean Recreational Boat Survey (ORBS) provides estimates of angler effort and catch in the boat-based ocean sport fishery out of Oregon ports. Data collected via angler interviews and access-point effort counts are expanded to develop total effort and catch estimates. In 2010, MRIP supported a review of the ORBS survey and estimation methodologies, led by consulting experts in statistical survey design. One of the outcomes of this review was a recommendation to develop an appropriate weighting scheme so that estimation more closely matches how the data is collected and which would allow for the construction of design-based variance estimation procedures.

1.3. Objectives

Jean Opsomer and Bryan Wright undertook initial work on developing weighting and variance estimation schemes. They used the statistical software R, and a small subset of existing ORBS data. Results of this “test” effort were promising, suggesting that the approach was suitable. Substantial additional work is now required to continue development of methodology and R code for variance estimation methodology that will be suitable for use with the entire ORBS dataset, as well as quality control code development and testing. This will enable the construction of confidence intervals around the ORBS estimates, resulting in improved estimates and understanding of their precision.

1.4. References

The proposed project is based on recommendations found in: F.J. Breidt and J.D. Opsomer, Consultant’s Report: Preliminary Review of Oregon Ocean Recreational Boat Survey, Colorado State University, July 27, 2010.

2. Methodology

2.1. Methodology

A statistician with expertise in survey design and R software will lead the effort to develop weighting and variance estimation procedures and programming, after a preliminary stage of familiarization with the ORBS design, dataset, and prior related work. The contractors who conducted the 2010 ORBS review, and appropriate ODFW personnel, will consult and assist.

2.2. Regions

2.3. Geographic Coverage

Data used are from ports on the entire OR coast. This project to occur primarily in Corvallis, OR.

2.4. Temporal Coverage

Data: year-round. This project to occur in 2012.

2.5. Frequency

Data collection occurs on a daily basis. Estimates made at various temporal scales.

2.6. Unit of Analysis

Angler effort

2.7. Collection Mode

Will use existing data for weighting and variance estimation methodology development & testing

3. Communications Plan

3.1. Internal

Project update meetings will be scheduled every other week during the project duration. These meetings will occur primarily via conference call as project personnel are in different locations. Other internal communication will occur via email, phone, or face-to-face meetings as necessary.

3.2. External

Monthly reports will be submitted to the MRIP OT in the required template. A detailed final report will describe the methods used, results obtained, challenges encountered, and recommendations (if any) for follow-up work or next steps.

4. Assumptions and Constraints

4.1. New Data

No

4.2. Track Costs

4.3. Funding Vehicle

Pacific RecFIN Grant

4.4. Data Resources

All individuals included in this proposal have indicated that they are willing and available to work on this project; each will be doing so in addition to other professional commitments. This proposal assumes that all will be able to devote adequate time to this project.

Constraints include working with output from an existing program written by an ODFW programmer (retired) which manipulates the raw ORBS interview and effort count data and stores output in an Access database.

4.5. Other Resources

None.

4.6. Regulations

None.

4.7. Other

None.

5. Risk

5.1. Project Risk

Table 1: Project Risk

Risk Description	Risk Impact	Risk Probability	Risk Mitigation Approach

6. Final Deliverables

6.1. Additional Reports

None.

6.2. New Data Sets

The final product of this project will be appropriate weighting and variance estimation procedures.

6.3. New Systems

Weighting and variance estimation procedures--R code and written documentation.

7. Project Leadership

7.1. Project Leader and Members

Table 2: Project Members

Project Role	Name	Organization	Title

8. Project Estimates

8.1. Project Schedule

Table 3: Project Schedule - Major Tasks and Milestones

#	Schedule Description	Planned Start	Planned Finish	Prerequisites	Milestones

8.2. Cost Estimates

Table 4: Cost Estimates

Project Need	Cost Description	Date Needed	Estimated Cost
TOTAL			$0.00